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| <b>TRANSMITTAL LETTER TO THE UNITED STATES<br/>DESIGNATED/ELECTED OFFICE (DO/EO/US)<br/>CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>   |   | ATTORNEY'S DOCKET NUMBER<br><b>UPN-4856</b>                   |
| INTERNATIONAL APPLICATION NO.<br>PCT/US2004/037926  | INTERNATIONAL FILING DATE<br>12 November 2004 | U.S. APPLICATION NO. (If known, see 37 CFR 1.5)<br>10/579,174 |
| PRIORITY DATE CLAIMED<br>14 November 2003   |   |   |
| TITLE OF INVENTION<br><b>METHOD AND DEVICE FOR TREATING OSTEOARTHRITIS AND CARTILAGE DISEASE, DEFECTS, AND ...</b>  |   |   |
| APPLICANT(S) FOR DO/EO/US   |   |   |
| <p>Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:</p> <ol style="list-style-type: none"> <li><input type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li><input checked="" type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li><input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</li> <li><input type="checkbox"/> The US has been elected (Article 31).</li> <li><input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))             <ol style="list-style-type: none"> <li><input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li><input type="checkbox"/> has been communicated by the International Bureau.</li> <li><input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li><input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).             <ol style="list-style-type: none"> <li><input type="checkbox"/> is attached hereto.</li> <li><input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li><input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))             <ol style="list-style-type: none"> <li><input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li><input type="checkbox"/> have been communicated by the International Bureau.</li> <li><input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li><input type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li><input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li><input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li><input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol> <p>Items 11 to 20 below concern document(s) or information included:</p> <ol style="list-style-type: none"> <li><input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li><input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li><input type="checkbox"/> A preliminary amendment.</li> <li><input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</li> <li><input type="checkbox"/> A substitute specification.</li> <li><input type="checkbox"/> A power of attorney and/or change of address letter.</li> <li><input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13(ter.3 and 37 CFR 1.821- 1.825.</li> <li><input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</li> <li><input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> </ol> |   |   |

This collection of information is required by 37 CFR 1.141 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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| U.S. APPLICATION NO. (if known, see 37 CFR 1.5)<br>10/579,174   |              | INTERNATIONAL APPLICATION NO.<br>PCT/US2004/037926                            |              | ATTORNEY'S DOCKET NUMBER<br>UPN-4856 |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| 20. Other items or information:   |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| <p>The following fees have been submitted</p> <table border="1"> <tr> <td colspan="2">21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a)).....</td> <td>\$330</td> <td>CALCULATIONS</td> <td colspan="2">PTO USE ONLY</td> </tr> <tr> <td colspan="2">22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c))</td> <td></td> <td></td> <td colspan="2"></td> </tr> <tr> <td colspan="2">If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . . . .</td> <td>\$0</td> <td></td> <td colspan="2"></td> </tr> <tr> <td colspan="2">All other situations.....</td> <td>\$220</td> <td></td> <td colspan="2"></td> </tr> <tr> <td colspan="2">23. <input type="checkbox"/> Search fee (37 CFR 1.492(b))</td> <td></td> <td></td> <td colspan="2"></td> </tr> <tr> <td colspan="2">If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . . . .</td> <td>\$0</td> <td></td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Search fee (37 CFR 1.445(a)(2)) has been paid on the International application to the USPTO as an International Searching Authority . . . . .</td> <td>\$100</td> <td></td> <td colspan="2"></td> </tr> <tr> <td colspan="2">International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB.....</td> <td>\$430</td> <td></td> <td colspan="2"></td> </tr> <tr> <td colspan="2">All other situations.....</td> <td>\$540</td> <td></td> <td colspan="2"></td> </tr> </table> |              |   |              |                                      |  | 21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a))..... |    | \$330                | CALCULATIONS | PTO USE ONLY |  | 22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c)) |  |  |  |  |  | If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . . . . |  | \$0 |  |  |  | All other situations..... |  | \$220 |  |  |  | 23. <input type="checkbox"/> Search fee (37 CFR 1.492(b)) |  |  |  |  |  | If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . . . . |  | \$0 |  |  |  | Search fee (37 CFR 1.445(a)(2)) has been paid on the International application to the USPTO as an International Searching Authority . . . . . |  | \$100 |  |  |  | International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB..... |  | \$430 |  |  |  | All other situations..... |  | \$540 |  |  |  |
| 21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a)).....  |              | \$330   | CALCULATIONS | PTO USE ONLY                         |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| 22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c))  |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . . . .   |              | \$0   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| All other situations.....   |              | \$220   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| 23. <input type="checkbox"/> Search fee (37 CFR 1.492(b))   |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . . . .  |              | \$0   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| Search fee (37 CFR 1.445(a)(2)) has been paid on the International application to the USPTO as an International Searching Authority . . . . .   |              | \$100   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB.....   |              | \$430   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| All other situations.....   |              | \$540   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| <b>TOTAL OF 21, 22 and 23 =</b>   |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) in an electronic medium or computer program listing in an electronic medium) (37 CFR 1.492(l)).<br>The fee is \$270 for each additional 50 sheets of paper or fraction thereof.   |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| Total Sheets  | Extra Sheets | Number of each additional 50 or fraction thereof (round up to a whole number) | RATE         |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| - 100 =   | /50 =        |   | x \$270      | \$                                   |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).   |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| CLAIMS  | NUMBER FILED | NUMBER EXTRA  | RATE         | \$                                   |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| Total claims  | - 20 =       |   | x \$ 52      | \$                                   |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| Independent claims  | - 3 =        |   | x \$220      | \$                                   |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| MULTIPLE DEPENDENT CLAIM(S) (if applicable)   |              |   |              | + \$390                              |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| <b>TOTAL OF ABOVE CALCULATIONS =</b>  |              |   |              | <b>\$ 130.00</b>                     |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by %.   |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| <b>SUBTOTAL =</b> <b>\$ 65.00</b>   |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(l)). + \$  |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| <b>TOTAL NATIONAL FEE =</b> <b>\$ 65.00</b>   |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property + \$   |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| <b>TOTAL FEES ENCLOSED =</b> <b>\$ 65.00</b>  |              |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| <table border="1"> <tr> <td>Amount to be refunded:</td> <td>\$</td> </tr> <tr> <td>Amount to be charged</td> <td>\$</td> </tr> </table>   |              |   |              |                                      |  | Amount to be refunded:   | \$ | Amount to be charged | \$           |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| Amount to be refunded:  | \$           |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |
| Amount to be charged  | \$           |   |              |                                      |  |  |    |                      |              |              |  |  |  |  |  |  |  |   |  |     |  |  |  |                           |  |       |  |  |  |   |  |  |  |  |  |  |  |     |  |  |  |   |  |       |  |  |  |   |  |       |  |  |  |                           |  |       |  |  |  |

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- a.  A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b.  Please charge my Deposit Account No. 23-3050 in the amount of \$ 65.00 to cover the above fees.
- c.  The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 23-3050.
- d.  Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. The PTO-2038 should only be mailed or faxed to the USPTO. However, when paying the basic national fee, the PTO-2038 may NOT be faxed to the USPTO.

**ADVISORY:** If filing by EFS-Web, do NOT attach the PTO-2038 form as a PDF along with your EFS-Web submission. Please be advised that this is not recommended and by doing so your credit card information may be displayed via PAIR. To protect your information, it is recommended paying fees online by using the electronic payment method.

**NOTE:** Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

John W. Caldwell  
Woodcock Washburn LLP  
Cira Centre  
2929 Arch Street, 12th Floor  
Philadelphia, PA 19104

/ John W. Caldwell /  
\_\_\_\_\_  
SIGNATURE  
John W. Caldwell  
\_\_\_\_\_  
NAME  
28,937  
\_\_\_\_\_  
REGISTRATION NUMBER